

NSRP Surface Preparation and Coatings (SPC) Panel Update

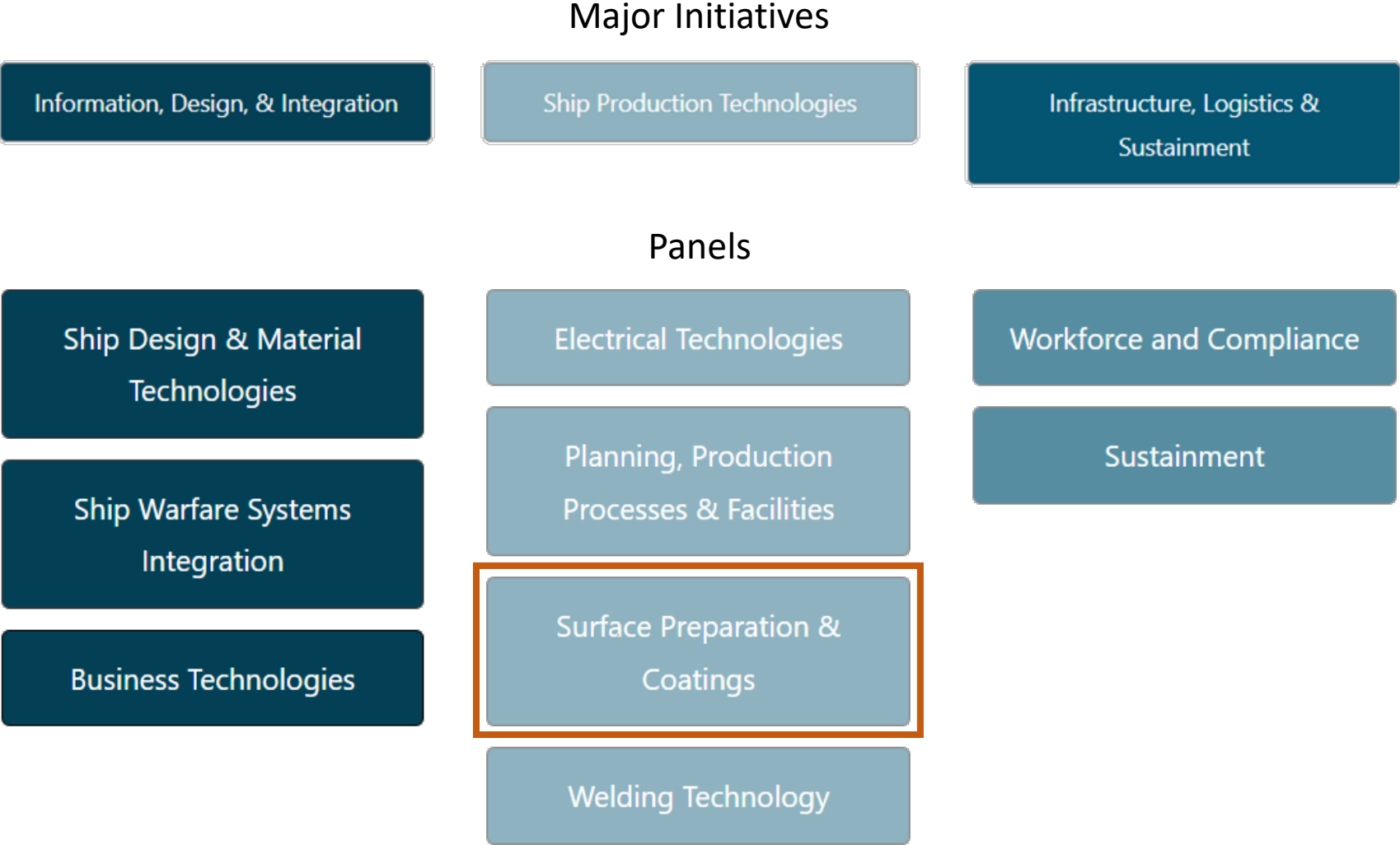
Conlan Hsu, Panel Chair

September 9, 2025 – Hampton, VA

Mission



NSRP Structure



SPC Purpose

- Develop new technologies and processes that streamline coating and corrosion control operations in shipbuilding new construction and maintenance
- Engage specifiers, suppliers, industry experts, and applicators of coating systems
- Coordinate panel meetings, facilities tours, and demonstrations to address issues and opportunities within the industry
- Leverage best practices from within the community

SPC Panel Steering Committee

Member Shipyards & NAVSEA

- Austal USA – Shawn Wilber
- BAE Shipyard – Patrick Kitchel
- Bath Iron Works – David Kinee
- Electric Boat – Chris Wowk
- Ingalls Shipbuilding – Haley McGee
- Marinette Marine – Jacob Phelps
- NASSCO – Angel Zepeda
- Newport News Shipbuilding – Conlan Hsu
- NAVSEA 05 – Mark Ingle & Nate Livesey

Panel Officers

- Panel Chair – Conlan Hsu
- Panel Vice-Chair – Angel Zepeda
- TWH – Mark Ingle
- Eng Mgr – Nate Livesey

NSRP / ATI

- Ryan Schneider – Project Manager
- Nick Laney – Panel Coordinator

Opportunities

- Research Announcement (RA) Projects
 - Up to 2 year period of performance
 - Up to \$3M budget/year, \$7M total, 50% cost share
 - Proposals due July 25
- Panel Projects
 - 1 year period of performance
 - Up to \$200K budget, no cost share
 - Submitted to a specific panel, top 3 (+1 joint) move forward to ECB
 - Quad charts pitched at June 17 meeting
 - Proposals due August 26
- Panel Meetings
 - Present new technologies & interesting topics to the panel
 - **If interested in presenting, email conlan.hsu@hii-nns.com**

SPC Panel Projects

Current Projects

- ❖ *Extended Recoat Windows for Non-Critical Zones*
- ❖ *Pulsed-Laser Comparison Tool* 2025
- ❖ *Testing and Analysis of Anti-Biofouling Coatings* 2024

Completed Projects

- ✓ *Enhanced Primers for Welding Operations*
- ✓ *The Effects of Blast Media on Production and Coating Performance* 2024
- ✓ *Cleanable Nonskid Deck Covering*
- ✓ *Ultra Heat Resistant Primer*
- ✓ *Zinc-Rich Coatings Over High Strength Steel* 2023
- ✓ *Transition of Power Tool Optimization - RAP*
- ✓ *Implementation of SP-18 in Construction – RAP* 2023
- ✓ *Optimize Power Tools Surface Preparation* 2020

Completed Projects (continued)

- ✓ *Survey of Surface Prep & Coatings Automation*
- ✓ *Standardization and Digitization of Visual Inspection for Shipbuilding & Repair*
- ✓ *Primers with Extended AF Overcoat Window*
- ✓ *Certification Program - Shipbuilding Industry Surface Prep & Coatings Training*
- ✓ *Virtual Spray Paint Training System* 2019
- ✓ *Thermal Insulating Aerogel Filled Coatings*
- ✓ *Evaluation of Plasma Coating Removal & Surface Preparation* 2018
- ✓ *Partial Blast of UHS Coated Tanks II*
- ✓ *Retention of Type VI Epoxy under Ultra High Solids* 2017
- ✓ *Boomlift Carried Environmental Enclosure*
- ✓ *Implementation of Paperless Paint* 2016
- ✓ *Universal Primer & Surface Prep Process*
- ✓ *Partial Blast of UHS Coated Tanks*
- ✓ *Technical Guide for Inaccessible Void Coatings & Treatments* 2015

FY26 Panel Project Solicitation

- 53 total submissions (up from 46 in FY25)
- SPC received 6 projects (down from 10)
 - 6 participating Member Shipyards
 - 0 proposed by Member Yards as lead

FY26 Panel Project Solicitation

Plug-and-Play Plasma Blast Cobotics

- **Hawk Technologies**

- FMM, RTT, APS, Cahill Consulting, DotProduct, NWTC, Wildwood Coating

Comparison of Laser Ablation to SSPC-SP Surface Preparation of Bare Steel

- **Elzly Technology Corp**

- HII-NNS

1K Oxsol (PCBTF) Free MIL-PRF-24635F Type V Comp 1 Coatings in OE Shipyards

- **Elzly Technology Corp**

- BAE Jacksonville, HII-Ingalls, HII-NNS, NCP Coatings

FY26 Panel Project Solicitation

Spray Application of Thermal Insulative Coatings (TIC)

- **Elzly Technology Corp**
 - HII-NNS, Sherwin Williams

Simulation-based Digital Shipbuilding Garment Design - Thermal Control

- **Old Dominion University Research Foundation**
 - GD-EB

Autonomous Equipment in a Shipyard Environment

- **Pratt & Miller Engineering & Fabrication**
 - Austal, HII-Ingalls, HII-NNS, Oshkosh Corporation, JLG

Upcoming Events

Event	Date	Location
AMPP Conference & Expo	Mar 15-19 2026	Houston, TX
MegaRust	June 2-4 2026	San Diego, CA
NSRP SPC Panel Summer Meeting	July-August 2026	TBD
NSRP SPC Panel Fall Meeting	September 2026	TBD

Questions?

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